BRIDGE QUANTITIES			
ITEM	UNIT	QUANTIT	
PMA S0.25	TON	3250	
PMA S0.5	TON	4725	
MATERIAL FOR TACK COAT	GAL	2975	
REMOVAL OF EXISTING WEARING SURFACE	SY	59500	
REMOVAL OF BRIDGE DECK CONCRETE	CY	30	
JACKING EXISTING SUPERSTRUCTURE (SITE NO. 1)	LS	LS	
REMOVAL OF PARAPET	CY	45	
TEMPORARY WORK PLATORM	LS	LS	
CLEAN EXISTING SCUPPERS	EA	71	
EXTEND EXISTING WEEPHOLES	EA	18	
REMOVAL AND REPLACEMENT OF EXISTING BRIDGE DRAINAGE SYSTEM	LF	89	
SILICONE EXPANSION JOINT SYSTEM	LF	125	
ASPHALTIC PLUG EXPANSION JOINT SYSTEM	CF	1445	
STRIP SEAL EXPANSION JOINT SYSTEM FOR REHAB PROJECTS	LF	264	
REPLACE MODULAR EXPANSION JOINT SEAL	LF	2000	
REPLACE MODULAR EXPANSION JOINT CONTROL SPRING ASSEMBLY	EA	135	
REPLACE MODULAR EXPANSION JOINT SUPPORT BAR BEARING	EA	36	
REPLACE MODULAR EXPANSION JOINT CENTER BEAM	LF	80	
CLEAN AND LUBRICATE EXISTING BEARINGS	EA	33	
3" ELASTOMERIC COMPRESSION SEAL	LF	216	
CLASS "S" CONCRETE	CY	30	
CLASS "F" CONCRETE	CY	90	
FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)	CY	450	
PARTIAL DEPTH PATCH	CF	8673	
REPAIR BEARING PAD	EA	2	
EPOXY INJECTION CRACK REPAIR	LF	35	
DEFORMED STEEL BARS	LB	30	
DEFORMED STEEL BARS (EPOXY COATED)	LB	30000	
DOWEL BAR SPLICER SYSTEM - EPOXY COATED	EA	250	
DRILLING AND GROUTING REINFORCING BARS	LF	10	
BOLT REPLACEMENT	EA	192	
CLEAN AND COAT EXPOSED REINFORCING STEEL REPAIR DEFECTIVE WELDS	LF LF	575	
	CWT	315	
STRUCTURAL STEEL REPAIRS (SITE NO. 1)	SF	105	
LOCALIZED PAINT REMOVAL & FIELD PAINTING OF EXISTING STEEL		1450	
REMOVAL OF EXISTING STRUCTURAL STEEL	LS	LS	
REPOINT MORTAR JOINTS	LF	5843	
MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)	SY	59300	
RESET METAL POST	EA	1652	
CONCRETE HAUNCH REMOVAL	LF	12421	
MODIFY LIGHT STANDARD ANCHORAGES	EA	3	
1" RIGID METAL CONDUIT IN STRUCTURE	LF	200	
2" RIGID METAL CONDUIT IN STRUCTURE	LF	380	
ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS (SITE NO. 1)	LS	LS	
CLASS 1 CONTAINMENT AND COLLECTION OF SURFACE PREPARATION DEBRIS (SITE NO. 1)	LS	LS	
PROTECTIVE COMPOUND FOR BRIDGES	SY	355	
REMOVAL OF EXISTING OVERHEAD SIGNING	LS	LS	
REMOVE AND RESET METAL BRIDGE RAIL (5'-0" HIGH)	LF	165	
REMOVE AND RESET METAL BRIDGE RAIL	LF	180	
PEENING COVER PLATE WELDS	EA	9	
RESET IMPACT ATTENUATOR	EA	1	
4" FIBERGLASS MULTIDUCT CONDUIT - EXTRA HEAVY WALL	LF	6500	
	EA	7	
18" X 12" X 8" CAST IRON JUNCTION BOX	LA	· /	
18" X 12" X 8" CAST IRON JUNCTION BOX 14" X 16" X 8" FIBERGLASS JUNCTION BOX	EA	13	

NOTICE TO BRIDGE INSPECTORS

THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS. (THE LISTING OF COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF ANY OTHER COMPONENT OF THE STRUCTURE.) THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE DIRECTED BY THE MANAGER OF BRIDGE SAFETY AND EVALUATION.

COMPONENT OR DETAIL	DRAWING NUMBER REFERENCE
NONE	-

INSPECTION	OF FI	ELD WELDS
METHOD	UNIT	QUANTITY
ULTRASONIC	INCH	0
MAGNETIC PARTICLE	FEET	321

CONCRETE DISTRIBUTION			
SUPERSTRUCTURE	CY	861	
SUBSTRUCTURE	CY	30	
FOOTINGS	CY	0	
TOTAL	CY	891	

DESIGNED BY: CARDINAL ENGINEERING ASSOCIATES Three Colony Street Meriden CT 06451 Tel: 203.238.1969 Fax: 203.630.2056 cardinalengineering.com	
DESIGNED BY: SILVA ENGINEERING, LLC 90 QUARRY STREET LOWER LEVEL WILLIMANTIC, CT 06226 PHONE: (860)423-4506 WWW.SILVAENGINEERING.COM	

GENERAL NOTES

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 (2004), SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 2016 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGE DESIGN - 17TH EDITION, 2002 WITH INTERIM SPECIFICATIONS INCLUDING AND UP TO 2003 AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003).

ALLOWABLE DESIGN STRESSES:

CLASS "S" CONCRETE BASED ON f'c = 3,000 PSI

CLASS "F" CONCRETE BASED ON f'c = 4,000 PSI

LIGHTWEIGHT CONCRETE BASED ON f'c = 4,000 PSI

REINFORCEMENT (ASTM A615 GRADE 60) BASED ON Fy = 60,000 PSI STRUCTURAL STEEL (ASTM M270 GRADE 50T2) BASED ON Fy= 50,000 PSI

THE SPECIFIED CONCRETE STRENGTH USED IN DESIGN, f'c, OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE MIX IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF "SECTION 6.01 CONCRETE FOR STRUCTURES".

LIVE LOAD: AASHTO HS20 LOADING (NEW ELEMENTS ONLY)

FUTURE PAVING ALLOWANCE: NONE

STRUCTURAL STEEL: SEE DWG. NO. SA-57 FOR DESIGNATIONS AND REQUIREMENTS.

PAINT: SELECT BEARINGS AND BEAM ENDS, AS DETAILED ON THE PLANS, SHALL BE CLEANED AND PAINTED UNDER THE ITEM "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS (SITE NO. 1)". THE CONTRACTOR SHALL ALSO PERFORM LOCALIZED FIELD PAINTING OF THE EXISTING STRUCTURAL STEEL AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER, WHICH WILL BE PAID FOR UNDER THE ITEM "LOCALIZED PAINT REMOVAL AND FIELD PAINTING OF EXISTING STEEL." THE COLOR OF THE TOP COAT SHALL CONFORM TO FEDERAL STANDARD 595A COLOR NO. 35526 LIGHT BLUE.

PMA OVERLAY: THIS SHALL CONSIST OF TWO LIFTS, THE FIRST SHALL BE PMA SO.25 (1" THICK) AND THE SECOND SHALL BE PMA SO.5 ($1\frac{1}{2}$ " THICK).

SUBSTRUCTURE ELEVATIONS: ELEVATIONS SHOWN ARE N.A.V.D. 1988 ELEVATIONS CONVERTED FROM ORIGINAL N.G.V.D. 1929 ELEVATIONS TAKEN FROM ORIGINAL AS-BUILT PLANS DATED 1969 & 1970.

DIMENSIONS: ALL DIMENSIONS SHOWN ON THE PLANS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE GIVEN IN FEET. WHEN ELEVATIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZERO.

EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

DEBRIS SHIELDS TO BE INSTALLED ON BRIDGE FOR UNDER DECK WORK ASSOCIATED WITH ITEMS "CLEAN AND COAT EXPOSED REINFORCING STEEL", "FULL DEPTH PATCH" AND "CONCRETE HAUNCH REMOVAL". DEBRIS SHIELDS SHALL BE PAID FOR UNDER THE RESPECTIVE ITEMS, FOR INFORMATION SEE SPECIAL PROVISIONS. SEE DRAWINGS SA-03 TO SA-05 FOR ADDITIONAL NOTES REGARDING THE INSTALLATION OF DEBRIS SHIELDS ON BRIDGE.

WORK PLATFORM: WORK PLATFORM IS BEING PROVIDED FOR THE RECONSTRUCTION OF MODULAR JOINTS AND BEING PAID FOR UNDER THE ITEM "TEMPORARY WORK PLATFORM", ITEM # 0503967A, SEE SPECIAL PROVISION. WORK PLATFORMS AND CONTRACTOR ACCESS REQUIRED FOR ALL OTHER WORK SHALL BE PAID FOR AND MEET THE REQUIREMENTS AS INDICATED UNDER THOSE ITEMS.

EXISTING PLANS: PLANS FOR THE EXISTING BRIDGE ARE AVAILABLE AT THE CONNECTICUT DEPARTMENT OF TRANSPORTATION PLAN ROOM, 160 PASCONE PLACE, NEWINGTON. THE ORIGINAL SUBSTRUCTURE WAS CONSTRUCTED UNDER PROJECT NO. 94-95. THE ORIGINAL SUPERSTRUCTURE WAS CONSTRUCTED UNDER PROJECT NO. 94-106 AND THE BRIDGE WAS REHABILITATED UNDER PROJECT NO. 94-171.

CONCRETE NOTES

CLASS "F" CONCRETE: CLASS "F" CONCRETE SHALL BE USED FOR RE-CONSTRUCTED PARAPETS AND DECK SECTIONS AT OVERHEAD SIGN SUPPORT ANCHORAGES. SEE DWG. NO. SA-96 FOR LOCATIONS.

LIGHTWEIGHT CONCRETE: LIGHTWEIGHT CONCRETE SHALL ALSO BE USED FOR RECONSTRUCTED PARAPETS AND DECK SECTIONS AT OVERHEAD SIGN SUPPORT ANCHORAGES. SEE DWG. NO. SA-96 FOR LOCATIONS.

CLASS "S" CONCRETE: CLASS "S" CONCRETE SHALL BE USED FOR PATCHING SUBSTRUCTURE COMPONENTS.

DECK REPAIRS: SURFACE REPAIRS TO THE DECK UNDERSIDE SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISION "CLEAN AND COAT EXPOSED REINFORCING STEEL". FULL DEPTH PATCHING (AS REQUIRED) AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISION "FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)". PARTIAL DEPTH PATCHING (AS REQUIRED) AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISION "PARTIAL DEPTH PATCH".

JOINT SEAL: SEE SPECIAL PROVISIONS

EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" \times 1" UNLESS DIMENSIONED OTHERWISE.

CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE TWO INCHES COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT: ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60.

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

GALVANIZED REINFORCING BARS: THE REINFORCEMENT IN THE JOINT HEADER SHALL BE GALVANIZED.

ADDENDUM NO. 1

↑ 09/19/16 REVISED CONCRETE TYPE

O4.002

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

SHEET NO. Plotted Date: 9/19/2016

REVISION DESCRIPTION

REV. DATE

S. SLATER
HECKED BY:
M. EGAN



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I-95 SB & TR 817 BRIDGE NOS. 02514A & NEW 02514B OVER THAMES RIVER, SR 635 RR, LOCAL ROADS & STATE PIER

NEW LONDON/GROTON

94-252

DRAWING NO.

SA-02

GENERAL NOTES

SHEET NO. **04.002.A1**



